

## Claims

What is claimed is:

- [c1] A method for generating a software development tool, comprising:  
creating a definition file defining an action to be performed by the software development tool;  
creating a schema defining characteristics of a plurality of desired inputs for the software development tool;  
creating a resource file comprising information required by the software development tool at runtime; and  
generating the software development tool using the definition file, the schema, and the resource file.
- [c2] The method of claim 1, further comprising:  
creating a command list comprising a set of commands that are used to define the action.
- [c3] The method of claim 1, further comprising:  
generating an annotation defining custom characteristics of a user interface of the software development tool using the schema.
- [c4] The method of claim 1, further comprising:  
creating an annotation defining semantics of a graphical user interface of the software development tool, wherein the annotation is used with the definition file, the schema, and the resource file to generate the software development tool.
- [c5] The method of claim 1, wherein the definition file further comprises references to the schema and the resource file.

- [c6] The method of claim 2, wherein the definition file further comprises references to the schema, the resource file, and the command list.
- [c7] The method of claim 3, wherein the definition file further comprises references to the schema, the resource file, and the annotation.
- [c8] The method of claim 1, wherein the definition file comprises an Extensible Mark-up Language document.
- [c9] The method of claim 1, wherein the schema comprises an Extensible Mark-up Language document.
- [c10] The method of claim 1, wherein the resource file comprises an Extensible Stylesheet Language document.
- [c11] The method of claim 2, wherein the command list comprises a transform command.
- [c12] The method of claim 11, wherein the transform command initiates an Extensible Stylesheet Language processor.
- [c13] The method of claim 1, wherein the annotation comprises an Extensible Mark-up Language document.
- [c14] The method of claim 3, wherein data obtained by the user interface is stored as metadata.
- [c15] The method of claim 14, wherein metadata comprises an Extensible Mark-up Language document.
- [c16] The method of claim 1, wherein the action comprises commands.

- [c17] The method of claim 1, wherein the software development tool is generated using a software development tool generator.
- [c18] The method of claim 17, wherein the software development tool generator is integrated within an Integrated Development Environment.
- [c19] The method of claim 1, wherein the software development tool is integrated within an Integrated Development Environment.
- [c20] A method for generating a software development tool, comprising:  
creating a definition file defining an action to be performed by the software development tool;  
creating a schema defining characteristics of a plurality of desired inputs for the software development tool;  
creating a resource file comprising information required by the software development tool at runtime;  
creating a command list comprising a set of commands that are used to define the action;  
generating the software development tool using the definition file, the schema, and the resource file; and  
generating an annotation defining custom characteristics of a user interface of the software development tool using the schema.
- [c21] A method for generating a software development tool, comprising:  
creating a definition file defining an action to be performed by the software development tool;  
creating a schema defining characteristics of a plurality of desired inputs for the software development tool;  
creating a resource file comprising information required by the software development tool at runtime;

creating a command list comprising a set of commands that are used to define the action;

creating an annotation defining semantics of a graphical user interface of the software development tool; and

generating the software development tool using the definition file, the schema, the, annotation, and the resource file.

[c22] A computer-readable medium having recorded thereon instructions executable by a processor, the instructions for:

receiving a definition file defining an action to be performed by the software development tool;

receiving a schema defining characteristics of a plurality of desired inputs for the software development tool;

receiving a resource file comprising information required by the software development tool at runtime; and

generating the software development tool using the definition file, the schema, and the resource file.

[c23] The computer-readable medium of claim 22, further comprising instructions for:

receiving a command list comprising a set of commands that are used to define the action; and

generating an annotation defining custom characteristics of a user interface of the software development tool using the schema.

[c24] The computer-readable medium of claim 22, further comprising instructions for:

receiving an annotation defining semantics of a graphical user interface of the software development tool, wherein the annotation is used with the definition file, the schema, and the resource file to generate the software development tool.

[c25] A computer system to generate a software development tool, comprising:  
a processor;  
a memory;  
an input means;  
a display device; and  
instructions stored in the memory for enabling the computer system under control  
of the processor, to perform:  
receiving a definition file defining an action to be performed by the software  
development tool;  
receiving a schema defining characteristics of a plurality of desired inputs for the  
software development tool;  
receiving a resource file comprising information required by the software  
development tool at runtime;  
receiving a command list comprising a set of commands that are used to define the  
action;  
generating the software development tool using the definition file, the schema, and  
the resource file; and  
generating an annotation defining custom characteristics of a user interface of the  
software development tool using the schema.

[c26] A computer system to generate a software development tool, comprising:  
a processor;  
a memory;  
an input means;  
a display device; and  
software instructions stored in the memory for enabling the computer system  
under control of the processor, to perform:  
receiving a definition file defining an action to be performed by the software  
development tool;

receiving a schema defining characteristics of a plurality of desired inputs for the software development tool;  
receiving a resource file comprising information required by the software development tool at runtime;  
receiving a command list comprising a set of commands that are used to define the action;  
receiving an annotation defining semantics of a graphical user interface of the software development tool;  
generating the software development tool using the definition file, the schema, the annotation, and the resource file.

- [c27] An apparatus for generating a software development tool, comprising:
- means for creating a definition file defining an action to be performed by the software development tool;
  - means for creating a schema defining characteristics of a plurality of desired inputs for the software development tool;
  - means for creating a resource file comprising information required by the software development tool at runtime;
  - means for creating a command list comprising a set of commands that are used to define the action;
  - means for generating the software development tool using the definition file, the schema, and the resource file; and
  - means for generating an annotation defining custom characteristics of a user interface of the software development tool using the schema.

- [c28] An apparatus for generating a software development tool, comprising:
- means for creating a definition file defining an action to be performed by the software development tool;
  - means for creating a schema defining characteristics of a plurality of desired inputs for the software development tool;
  - means for creating a resource file comprising information required by the software development tool at runtime;
  - means for creating a command list comprising a set of commands that are used to define the action;
  - means for creating an annotation defining semantics of a graphical user interface of the software development tool; and
  - means for generating the software development tool using the definition file, the schema, the annotation, and the resource file.